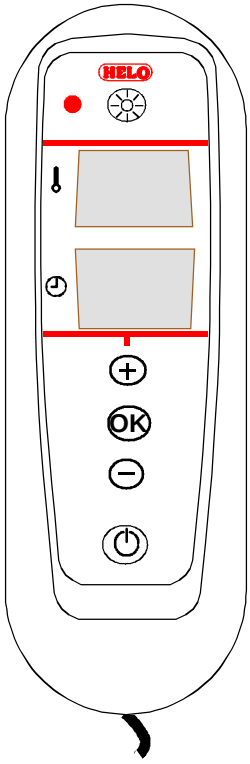
USER MANUAL RA 18 CONTROL PANEL

Control Panel RA 18 Typ 1601-18



General:

- Control panel is intended to be installed next to the heater in the area outlined in the manual.
- The control panel is compatible with the following heater models:
  - 1712 – xx – 0405 (SKSM….DE)
  - 1712 – xx – 040520 (SKSM….DEW)
  - 1116 – xx – 0405 (SKLR….DE)

- Maximum heating time 6 hours. Maximum preset time 23 hours.
- Adhere to given installation measurements.
- Heater and connection into the mains can only be carried out by an authorised person according to current electricity regulations.
- **NOTE!** Prior to switching the heater on, ensure that the sauna room is ready for heating.

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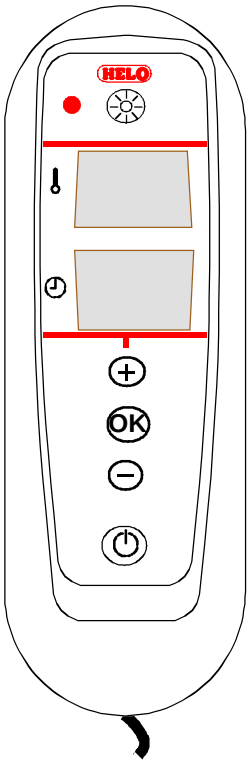


Light control on / off

Sauna room temperature display

Time display

Increase setting

OK-button approves changes

Decrease default setting

Heater activation on / off

Control panel:

On/Off button	Starts and stops functions. When the equipment is active, pressing this button will stop all functions and display will turn off. When button is pressed when the equipment is in passive mode (display off), it will activate the control.
OK button	Approves changes in settings or moves to the next setting depending on function mode.
+ button	Increase setting
- button	Decrease setting
Light button	Activates a relay on the circuit board. Electrical connectors for lighting have connectors N and a light-symbol, voltage 230 VAC. A led is activated next to the button on the Control panel when lights are activated.

Function times and settings:

- preset time	0 ... 23 hours
- function time	0 ... 6 hours
- temperature setting	0 ... 110 °C

Display during an error:

Err 1	Overheating protection activated
Err 2	Sensor malfunctioning

Err 3 Serial traffic is not functioning between the relay card and the Control Panel

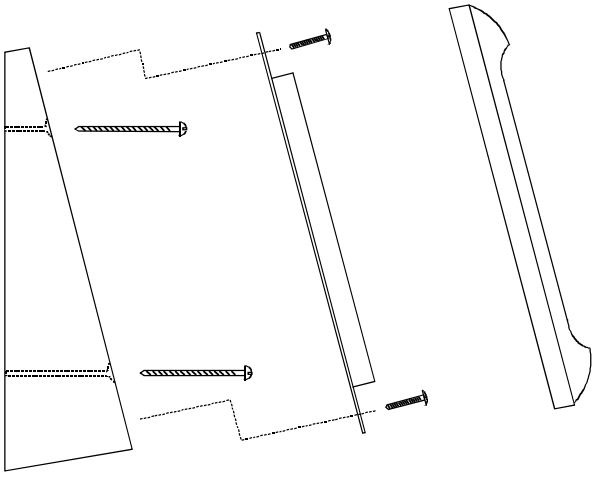
Control panel functions:

Activating the Control panel, the lower display will begin flashing from where the preset time can be set 0...23 hours by pressing + or - buttons. If OK button is pressed when preset time is zero, preset will be bypassed and the upper display will start flashing. Here you can set the desired temperature from 0 to 110 degrees (Celsius) using the + and - buttons. OK button accepts the temperature, after which the lower display will begin flashing. This setting is for the operation time from 0 to 6 hours using the + and - button. Once the time is set, press the OK button. Heater activates.

The temperature sensor monitors the temperature above the heater and controls the temperature to match that in the M-point. Also functions as a limiting sensor.

Serial traffic card OLEA 83 and Control panel RA 18 connected to OLEA 57 circuit card:

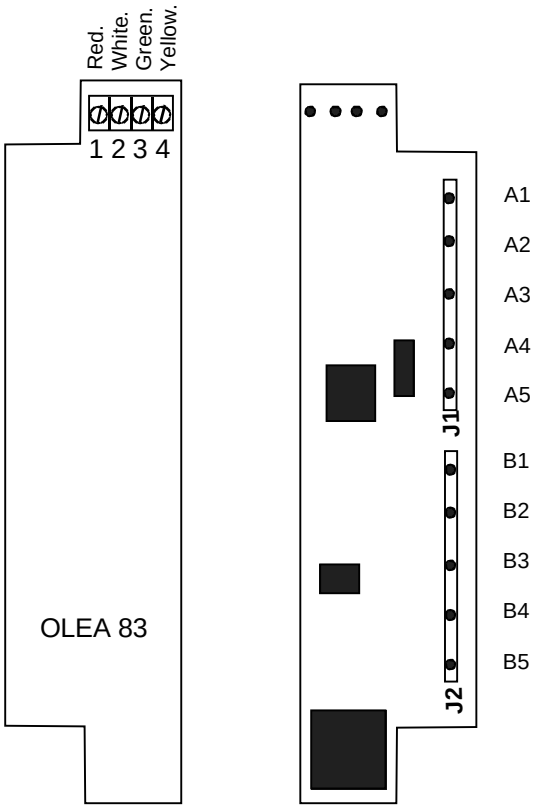
Control panel is affixed to the wall as described In the picture.
Check distances from the heater's installation Picture

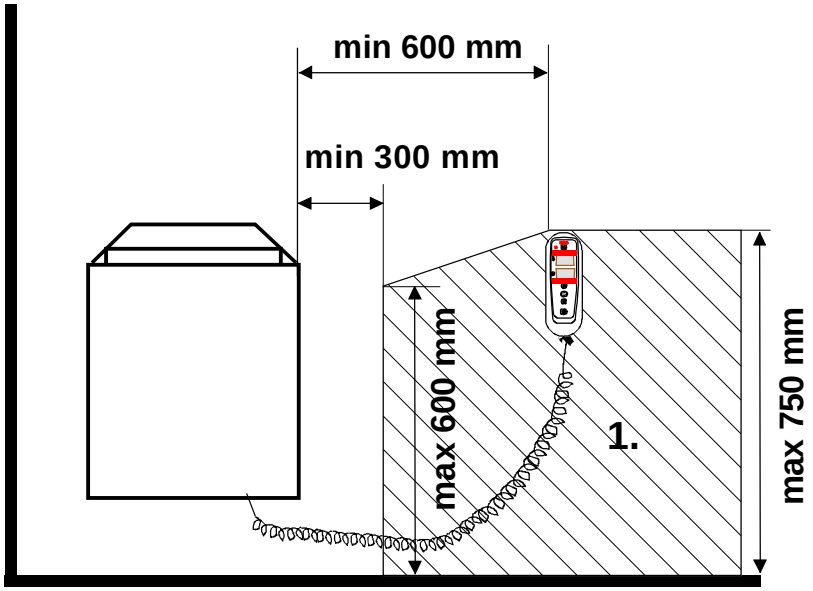


Serial traffic card OLEA 83 connection:

Control panel cable

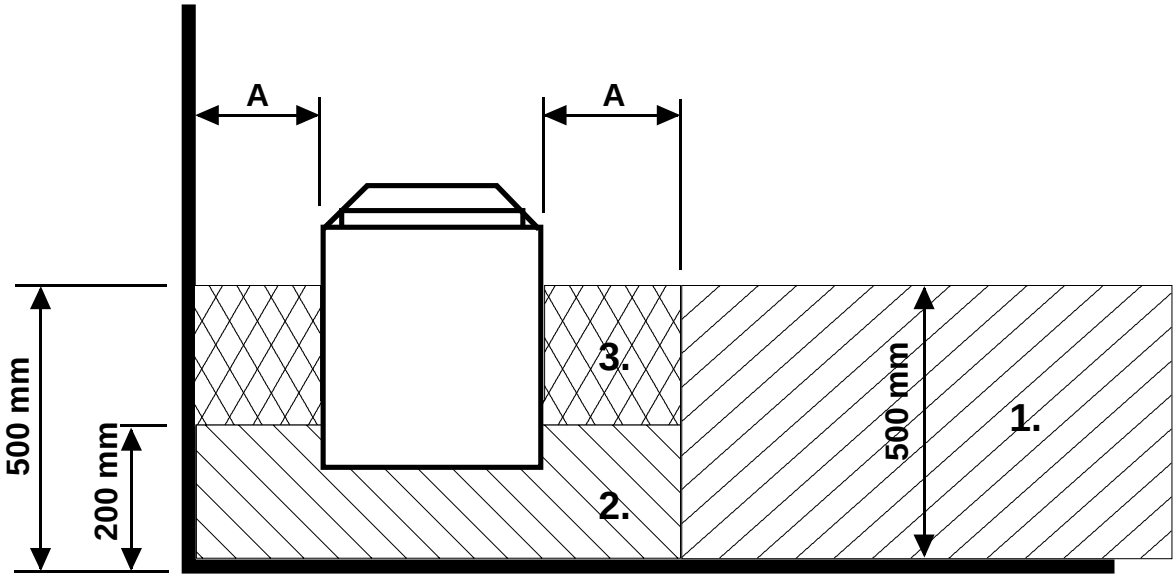
Serial traffic card's connection to the heater's Main card.





1. Control panel must, without exception, be fitted on the dotted area.

Heater's connection lead's connection box's placement on the wall.



A=Declared minimum safety distance

1. Suggested placement for the connection box.
2. Siluminium boxes should be used in this area.
3. This area should always be avoided and use siluminium boxes only.

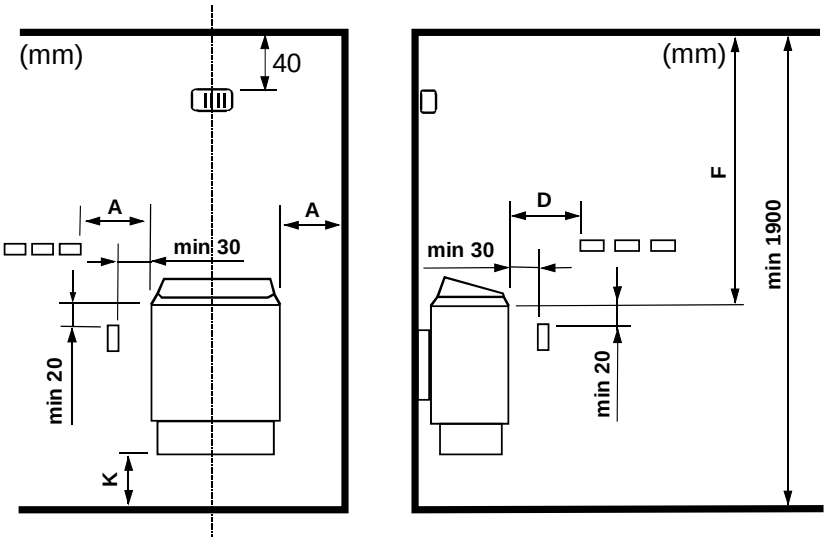
Heat resistant boxes (T125 ºC) and leads should be used in all other areas.
(T170 ºC).

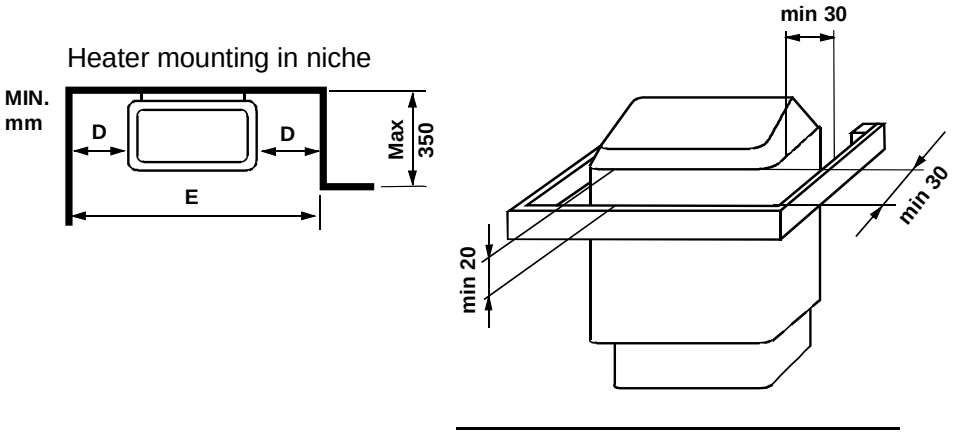
Access to the box must not be obstructed.
When placing the box in areas 2 and 3, local energy board's regulations must be checked.

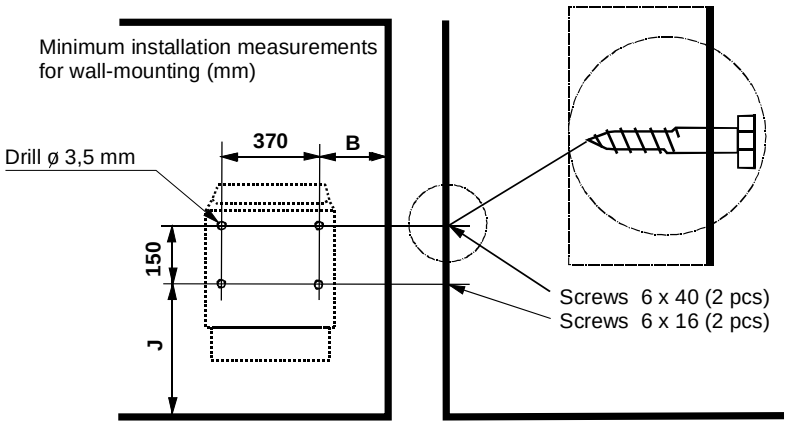
Check electrical safety regulations section 19 pointing to electrical heater control and safety equipment.

HEATER'S MINIMUM 1712-...-0405 INSTALLATION MEASUREMENTS (MM)

Type		Sauna room		Minimum distance to:				Minimum distance for the wall bracket		Width of the niche	Stone
		Volume	Height	Side wall	Brackets and bench	Ceiling	Floor				
				A	D	F	K	B	J	E	
	kW	m³	mm	mm	mm	mm	mm	mm	mm	mm	approx
1712-30-0405	3,0	2 - 4	1900	30	50	1200	120	50	390	540	15
1712-45-0405	4,5	3 - 6	1900	50	80	1200	120	70	390	580	15
1712-60-0405	6,0	5 - 9	1900	70	100	1250	120	90	390	650	23
1712-80-0405	8,0	8 - 13	1900	100	150	1250	120	120	390	750	23
1712-90-0405	9,0	9 - 14	1900	100	200	1250	120	120	390	-	23

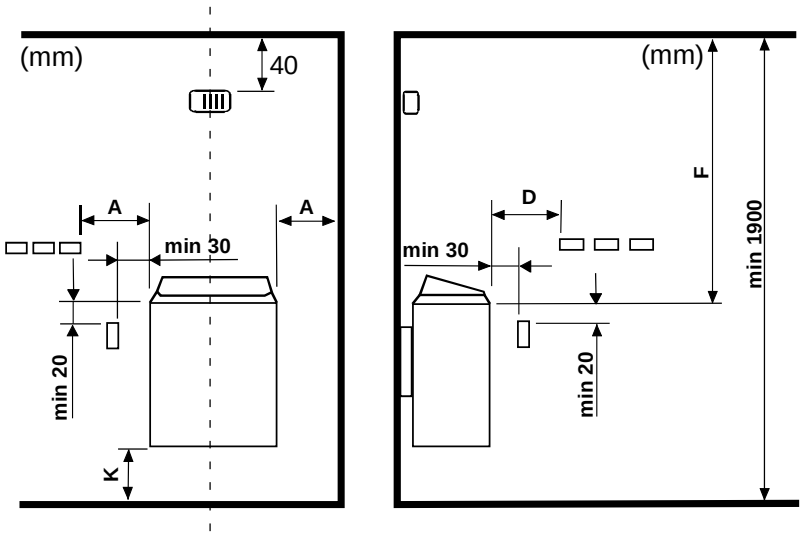




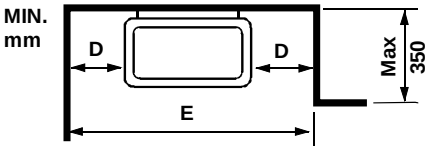


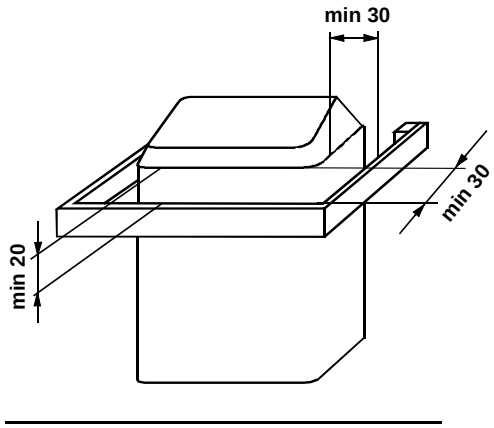
HEATER'S MINIMUM 1712-...-040520 INSTALLATION MEASUREMENTS (MM)

Type		Sauna room		Minimum distance to:				Minimum distance for the wall bracket		Width of the niche	Stone
		Volume	Height	Side wall	Brackets and bench	Ceiling	Floor				
	kW	m³	mm	A mm	D mm	F mm	K mm	B mm	J mm	E mm	approx
1712-30-040520	3,0	2 - 4	1900	30	50	1200	120	50	390	540	15
1712-45-040520	4,5	3 - 6	1900	50	80	1200	120	70	390	580	15
1712-60-040520	6,0	5 - 9	1900	70	100	1250	120	90	390	650	20
1712-80-040520	8,0	8 - 13	1900	100	150	1250	120	120	390	750	20
1712-90-040520	9,0	9 - 14	1900	100	200	1250	120	120	390	-	20

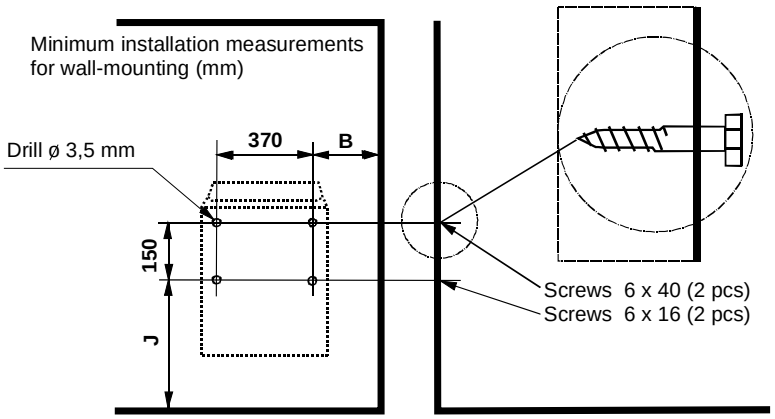


Heater mounting in niche



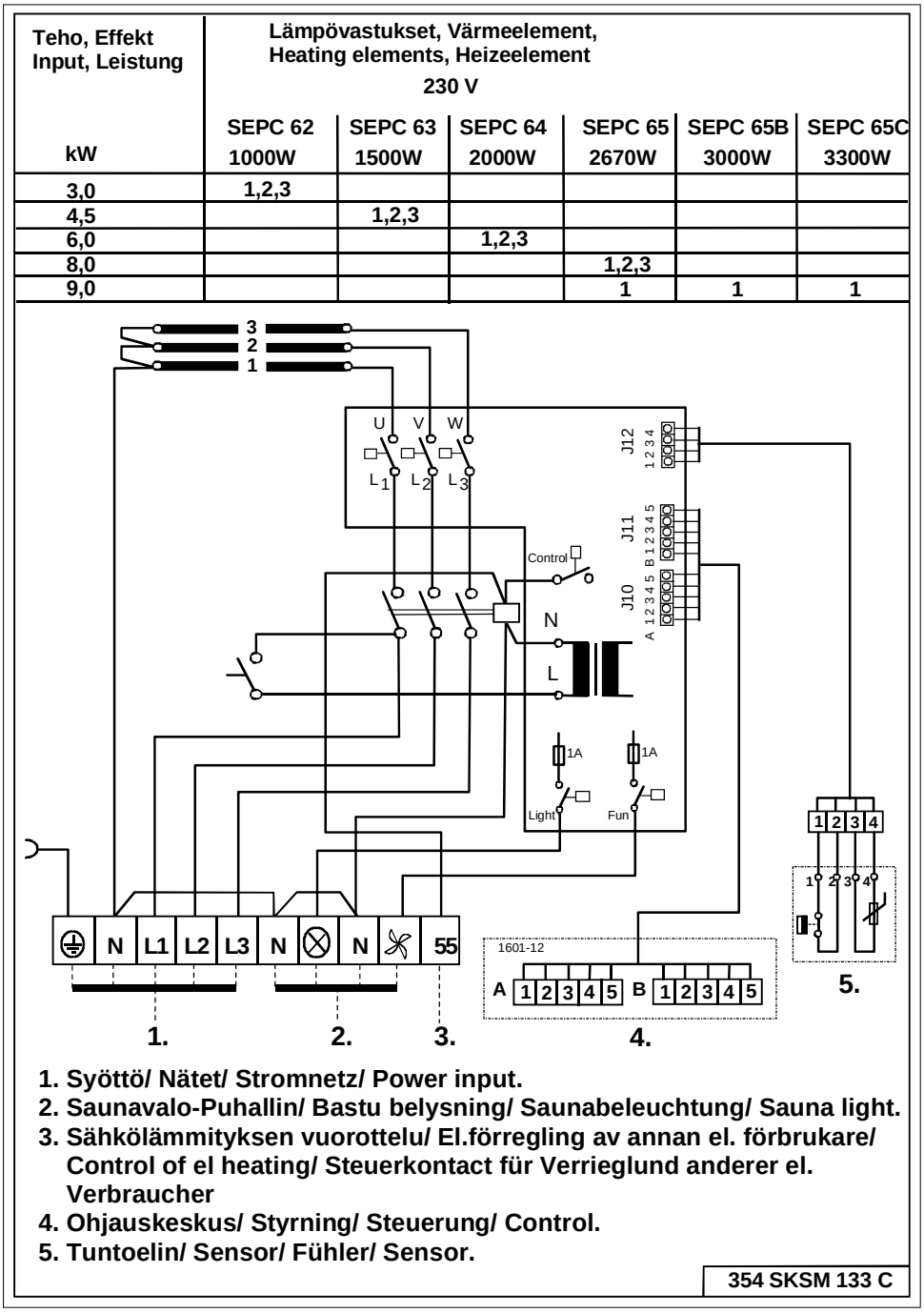


Minimum installation measurements for wall-mounting (mm)

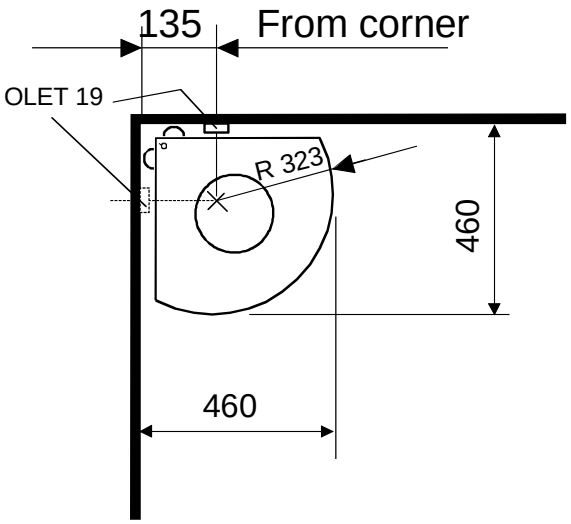


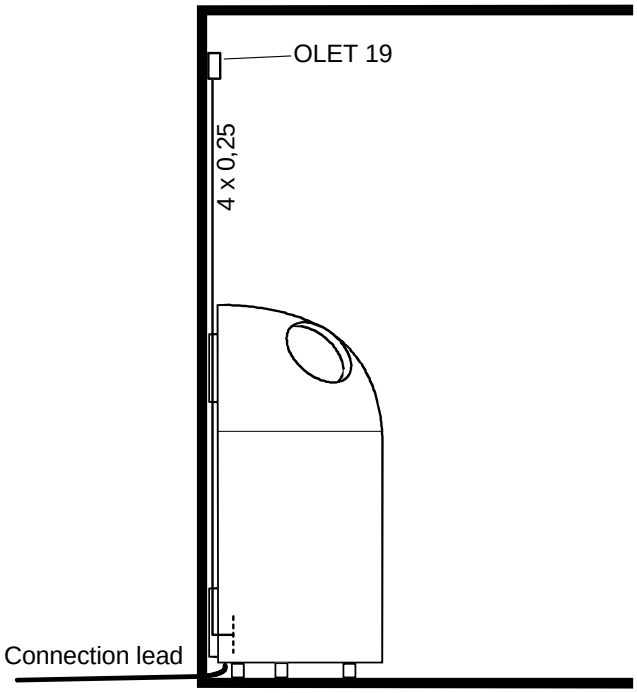
Connecting heaters 1712-...-0405 and 1712...-040520 into the mains.

kW	Fuse A	Heater's connection Cable H07RN-F mm^2	Fixed installation mm^2
3,0	3 x 10	5 x 1,5	5 x 1,5
4,5	3 x 10	5 x 1,5	5 x 1,5
6,0	3 x 10	5 x 1,5	5 x 1,5
8,0	3 x 16	5 x 1,5	5 x 2,5
9,0	3 x 16	5 x 1,5	5 x 2,5

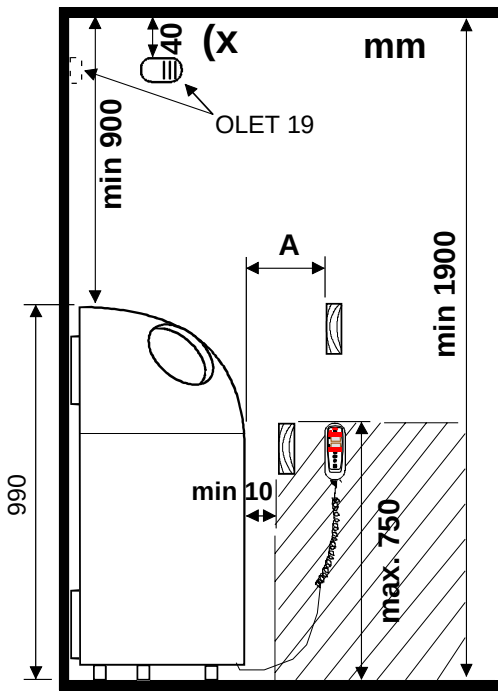


Minimum installation measurements (mm) for 1116-...-0405 heater

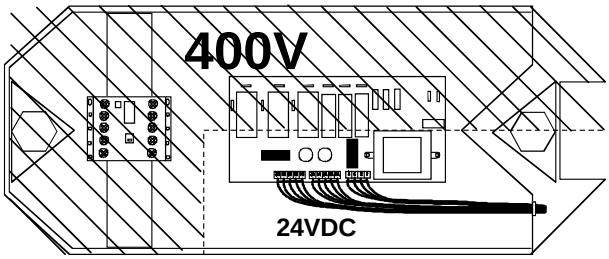




(**x** = This measurement is absolute



Heater	Minimum installation distance
kW	A mm
4,5	40
6,5	150
9,0	150

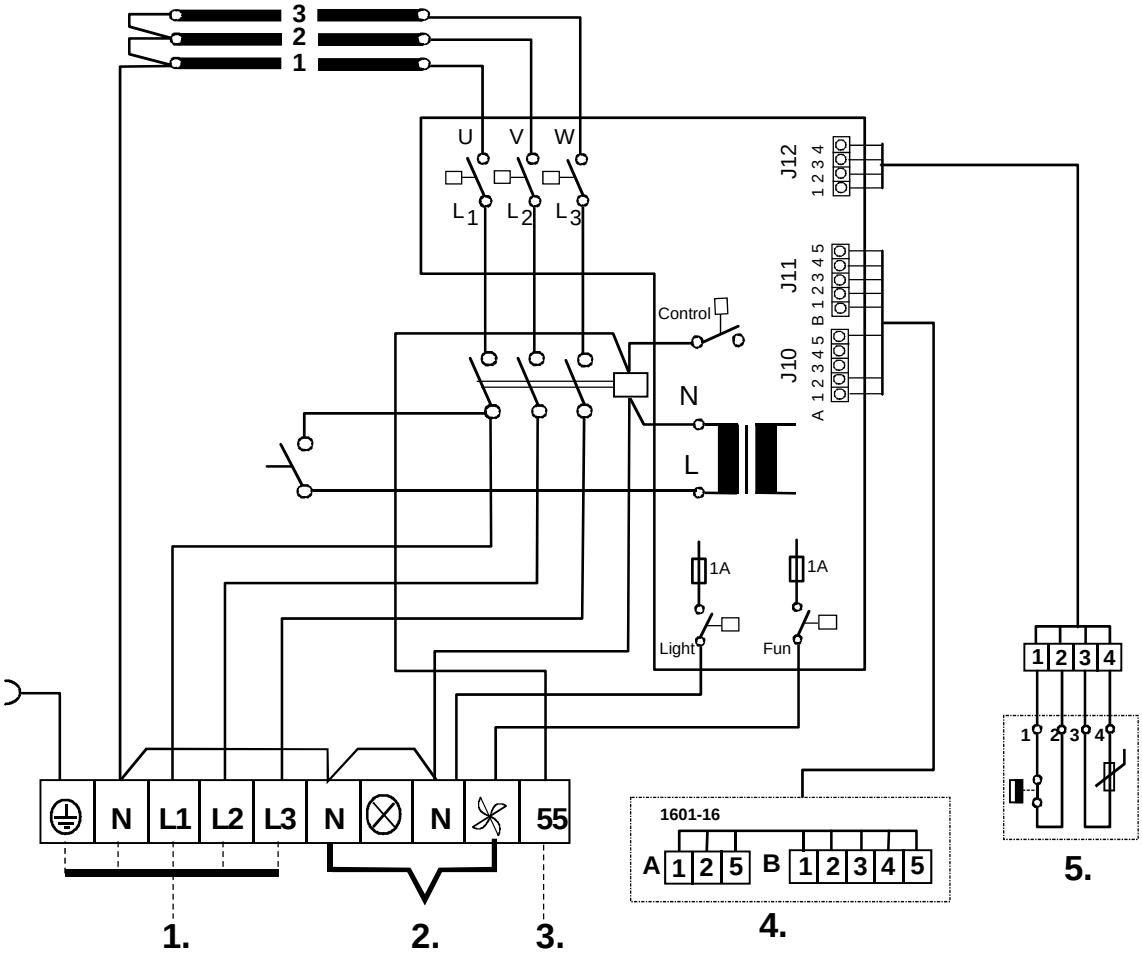


Sensor and control unit leads cannot be so long that they reach into the 400V dotted area

Connecting the heater into the mains

Type	kW	Fuse A	Heater's connection lead H07RN-F mm²	Fixed installation mm²	Sauna room Volume m³	Sauna room Height mm
1116-45-0405	4,5	3 x 10	5 x 1,5	5 x 1,5	3 - 6	1900
1116-65-0405	6,5	3 x 10	5 x 1,5	5 x 1,5	5 - 10	1900
1116-90-0405	9,0	3 x 16	5 x 1,5	5 x 2,5	9 - 14	1900

Teho, Effekt Input, Leistung kW	Lämpövastukset, Värmeelement, Heating elements, Heizeelement 230 V SEPC 185 1500W	SEPC 186 2170W	SEPC187 3000W	
4,5	1,2,3			
6,5		1,2,3		
9,0			1,2,3	



1. Syöttö/ Nätet/ Stromnetz/ Power input.
2. Saunavalo-Puhallin/ Bastu-Fläkt/ Saunabeleuchtung-ventilerung/ Sauna light-fan.
   1601-16 Ei toimintoa/ Ingen funktion/ No Function/ Keine funktion
3. Sähkölämmityksen vuorottelu/ El.förregling av annan el. förbrukare/ Control of el heating/ Steuerkontact für Verrieglund anderer el. Verbraucher
4. Ohjauskeskus/ Styrning/ Control/ Steuerung.
5. Tuntoelin/ Sensor/ Fühler/ Sensor.

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